Type: Invited Presentation

Final Abstract Number: 38.002
Session: Enteric Fever Prevention and Control Strategies
Date: Saturday, March 5, 2016
Time: 15:45-17:45
Room: Hall 5

Development status of typhoid conjugate vaccines globally

S. Sahastrabuddhe

International Vaccine Institute, Seoul, Korea, Republic of

Abstract: *Salmonella* Typhi, the bacteria that causes Typhoid fever, is one of the first bacterium cultured and isolated. This scourge still affects many children and adults mainly in the poor communities in the developing countries. There are currently two moderately efficacious typhoid vaccines that are licensed in many countries and one of them has been prequalified by WHO, but there are limitations to these vaccines in terms of storage conditions, age of administration and need for revaccination because of limited efficacy. There are new vaccine candidates in the pipeline using conjugation technology or recombinant DNA technology. Two of these conjugate vaccines are available in India and although the data is still unclear about their effectiveness, they should be utilized to better control the disease. In this presentation, we will get updates on the current status of vaccine development for various typhoid conjugate vaccines and ways forward.

http://dx.doi.org/10.1016/j.ijid.2016.02.188

Type: Invited Presentation

Final Abstract Number: 38.003
Session: Enteric Fever Prevention and Control Strategies
Date: Saturday, March 5, 2016
Time: 15:45-17:45
Room: Hall 5

Strategies on containing and treating drug resistant typhoid in low and middle-income contries

A. Arjyal

Oxford University Clinical Research Unit, Lalitpur, Nepal

Abstract: Multiple strategies for the patient and clinician, and for the population and policymakers should be urgently schemed to counter drug resistant enteric fever in LMICs.

The usual patient-clinician interface, a single meeting at the point of care, with one or two follow-ups afterwards, should be extended both retrospectively and prospectively. Retrospectively, with a careful screening and documentation of putative exposures in the probable incubation period, and prospectively, with a post-treatment tracing of close contacts for features of illness and monitoring of the patient for relapse or treatment failure. Where blood-culture is available, pairing of clinical data with susceptibility data should be carried out. All this information should be notified to an empowered local public health body so that preventive measures may be instituted promptly. Clinicians and other team-members involved must be rewarded for prevention and control efforts.

Promulgation of current diagnosis and treatment guidelines, readily accessible and implementable with local resources, should be carried out routinely. This should be based on a constant pipeline of treatment studies, preferably randomised controlled trials, conducted in an area with a similar susceptibility pattern. As an example, the fluoroquinolones, drugs of choice until quite recently, shouldn't be used in most of South Asia, where there is a widespread circulation of fully resistant strains, and agencies such as the WHO should promptly endorse a fact as such.

Notification and guideline access should exploit the widespread availability of web resources and mobile communications.

The development of rapid diagnostic tests must be prioritized and the way must be paved for the discovery and production of newer antimicrobials and rediscovery and reuse of older agents hitherto no longer in use. Awareness about antibiotics should be increased and stringent controls over antibiotic use should be exercised. Vaccination, even if it be with the existing Vi polysachharide, despite its limited efficacy or high market prices, can be carried out selectively in populations, age groups or geographic areas at a high risk of disease.

The provision of hygiene, sanitation and safe drinking water may need tremendous investments in infrastructure and can be very difficult to attain in a short span of time. Until such a time, given the high costs of resistant disease to the individual and society, the additional strategic steps to contain it outlined above are definitely worth the extra endeavours.

http://dx.doi.org/10.1016/j.ijid.2016.02.189

Type: Invited Presentation

Final Abstract Number: 38.004
Session: Enteric Fever Prevention and Control Strategies
Date: Saturday, March 5, 2016
Time: 15:45-17:45
Room: Hall 5

Global typhoid policy recommendations

A. Zaidi

Bill & Melinda Gates Foundation, Seattle, WA, USA

Abstract: The burden of typhoid is significant and occurs largely in children, with the highest rates occurring in children under 5 years of age living in poor urban environments in South Asia and sub-Saharan Africa. Water scarcity, climate change, and rapid uncontrolled urbanization in low and low-middle income countries may mitigate any improvements in water, sanitation and hygiene infrastructure historically seen with socio-economic development, and lead to conditions favoring more typhoid transmission in the future. In addition, the alarming increases in antibiotic resistance and the emergence of a globally pervasive and dominant multi-drug resistant strain (H58) seriously limits the oral therapeutic options available and has the potential to drive increased burden and case fatality.

Despite the substantial burden and the high probability that effective typhoid conjugate vaccines (TCVs) will be available in the near future, there has been a lack of global momentum for achieving typhoid control. In order to align the global community towards concerted action on typhoid, an aggressive goal for global typhoid control, and an action plan is needed. We believe aggressive typhoid control is achievable through an integrated approach including improving surveillance systems to accurately